

Joint Session of 19<sup>th</sup> Conference of Hydrology and 16th Symposium on Global Change  
and Climate Variations for 85<sup>th</sup> AMS Annual Meeting, 9-13 January 2005

### **Land Surface Albedo And Its Impact on Surface Climate**

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This session aims to bridge the gaps among remote sensing, climate modeling, and climate change experts by providing an opportunity to exchange information and hold in-depth discussions on albedo measurements, simulations, and the impact of albedo on land surface energy and hydrological processes.

The natural heterogeneity of land surfaces result in albedos which vary spatially and temporally. Monitoring land surface albedo variations from remote sensing techniques and simulating these in a climate/land surface model are always challenging endeavors. Furthermore, the role of the albedo feedback in global climate processes still needs to be investigated more fully. . With the recent progress in deriving albedo from satellite observations, as well as community-wide climate/land surface model developments, the time is ripe to discuss how to apply the best available albedo datasets into climate models and to help both the remote sensing and climate modeling communities understand what accuracy is needed and what uncertainties still remain in the data. Below are a number of questions we hope will be addressed in this session:

1. What are the best land surface albedo data sets currently available? What are their resolutions, spatial coverage, accuracy, and uncertainties?
2. What are the current applications these land surface albedo measurements are best suited for?
3. How do uncertainties in albedo affect the climate/land surface model's performance?
4. What are the spatial and temporal variations of land surface albedo, as functions of land cover and use?
5. What extreme changes have occurred in land surface albedo in the past decades, and what has been the impact on regional or large scale climate?
6. What are the remaining problems/difficulties in simulating land surface albedo in land surface model? How can remote sensing techniques help address these difficulties?
7. What is the impact of albedo feedback to regional and global climate?